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BUREAU OF MINES MINERALS YEARBOOK

The Mineral Industry of New Jersey

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This publication is a chapter from the current Bureau of Mines Minerals Yearbook, comprising *Volume I, Metals and Minerals; Volume II, Area Reports: Domestic; Volume III, Area Reports: International.* The separate volumes of the Yearbook are sold by the Superintendent of Documents, Washington, D.C. 20402.

The Mineral Industry of New Jersey

This chapter has been prepared under a Memorandum of Understanding between the Bureau of Mines, U.S. Department of the Interior, and the Geological Survey, Division of Water Resources, New Jersey Department of Environmental Protection, for collecting information on all nonfuel minerals.

By Donald K. Harrison[1]

The value of New Jersey's nonfuel mineral production in 1984 was $156.2 million, a $1.6 million increase over that of 1983. Crushed stone continued to be the leading nonfuel mineral produced, accounting for nearly one-half of the State's total value. Other minerals produced, in order of descending value, included industrial sand, construction sand and gravel, zinc, greensand, clays, dimension stone, and peat. Mineral commodities processed or manufactured included aluminum, copper, ferroalloys, gypsum, iodine, iron oxide pigments, perlite, quartz crystal, selenium, talc, and vermiculite. Elemental sulfur was recovered as a byproduct at four oil refineries.

Nationally, New Jersey ranked 35th in the value of nonfuel minerals produced. The State ranked third in output of industrial sand, fifth in zinc production, and sixth of 29 States that exfoliated vermiculite.

Table 1.—Nonfuel mineral production in New Jersey[1]

Mineral	1983		1984	
	Quantity	Value (thousands)	Quantity	Value (thousands)
Clays thousand short tons	62	$596	62	$611
Gem stones	NA	1	NA	1
Peat thousand short tons	W	W	5	128
Sand and gravel:				
Construction do.	*10,800	*34,300	9,545	31,878
Industrial do.	2,386	31,819	2,712	32,287
Stone (crushed) do.	12,301	70,421	*13,500	*75,000
Zinc (recoverable content of ores, etc.) metric tons	16,475	15,033	W	W
Combined value of magnesium compounds (1983), greensand, stone (dimension), and values indicated by symbol W	XX	2,445	XX	16,331
Total	XX	154,615	XX	156,236

*Estimated. NA Not available. W Withheld to avoid disclosing company proprietary data; value included with "Combined value" figure. XX Not applicable.
[1]Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

Table 2.—Value of nonfuel mineral production in New Jersey, by county[1]

(Thousands)

County	1982	1983	Minerals produced in 1983 in order of value
Atlantic	W	(2)	
Bergen	$1,263	(2)	
Burlington	W	(2)	
Camden	2,652	(2)	
Cape May	W	(2)	Magnesium compounds.
Cumberland	W	W	Sand (industrial), clays.
Essex	(2)	W	Stone (crushed).
Gloucester	W	W	Greensand, sand (industrial).
Hudson	(2)	--	
Hunterdon	(2)	W	Stone (crushed), stone (dimension).
Mercer	(2)	W	Stone (crushed).
Middlesex	W	W	Sand (industrial).
Monmouth	1,648	(2)	
Morris	4,786	$6,692	Stone (crushed).
Ocean	W	W	Sand (industrial).
Passaic	1,787	10,126	Stone (crushed).
Salem	W	(2)	
Somerset	W	27,300	Stone (crushed), clays.
Sussex	17,178	W	Zinc, stone (crushed), peat.
Warren	W	W	Peat.
Undistributed[4]	r45,268	76,197	
Sand and gravel (construction)	XX	e34,300	
Stone:			
Crushed	e57,800	XX	
Dimension	W	XX	
Total	r 3132,333	154,615	

eEstimated. rRevised. W Withheld to avoid disclosing company proprietary data; included with "Undistributed." XX Not applicable.

[1]No production of nonfuel mineral commodities was reported for Union County.

[2]Construction sand and gravel was produced; data not available by county. Total State value is shown separately under "Sand and gravel (construction)."

[3]Stone, either crushed or dimension, was produced; data not available by county. Total State values are shown separately under "Stone."

[4]Includes gem stones that cannot be assigned to specific counties and values indicated by symbol W.

[5]Data do not add to total shown because of independent rounding.

Table 3.—Indicators of New Jersey business activity

		1982r	1983	1984p
Employment and labor force, annual average:				
Population	thousands	7,428	7,464	7,515
Total civilian labor force	do	3,619	3,673	3,829
Unemployment	do	325	288	236
Employment (nonagricultural):				
Mining total[1]	do	2.1	2.0	2.2
Nonmetallic minerals except fuels[2]	do	1.9	1.8	NA
Oil and gas extraction[2]	do	.1	.1	NA
Manufacturing total	do	729.7	715.1	729.4
Primary metal industries	do	21.8	20.7	21.7
Stone, clay, and glass products	do	27.1	26.8	26.4
Chemicals and allied products	do	124.5	119.1	120.7
Petroleum and coal products	do	11.2	10.3	10.1
Construction	do	107.3	112.1	132.6
Transportation and public utilities	do	197.1	203.0	215.9
Wholesale and retail trade	do	701.2	735.3	795.9
Finance, insurance, real estate	do	167.1	172.7	182.8
Services	do	662.1	701.0	754.7
Government and government enterprises	do	510.6	521.2	525.3
Total	do	3,077.2	3,162.4	[3]3,338.7
Personal income:				
Total	millions	$97,093	$104,823	$116,029
Per capita		$13,073	$14,044	$15,444
Hours and earnings:				
Total average weekly hours, production workers		39.9	40.6	41.1
Total average hourly earnings, production workers		$8.66	$9.11	$9.50

See footnotes at end of table.

Table 3.—Indicators of New Jersey business activity —Continued

		1982[r]	1983	1984[p]
Earnings by industry:				
Farm income	millions	$205	$194	$206
Nonfarm	do.	$63,881	$70,032	$78,127
Mining total	do.	$56	$54	$62
Nonmetallic minerals except fuels	do.	$44	$45	$52
Oil and gas extraction	do.	$9	$6	$7
Manufacturing total	do.	$17,429	$18,783	$20,269
Primary metal industries	do.	$604	$621	$666
Stone, clay, and glass products	do.	$639	$657	$693
Chemicals and allied products	do.	$3,795	$3,910	$4,240
Petroleum and coal products	do.	$518	$548	$567
Construction	do.	$2,840	$3,209	$3,997
Transportation and public utilities	do.	$5,754	$6,153	$7,015
Wholesale and retail trade	do.	$11,182	$12,348	$14,077
Finance, insurance, real estate	do.	$3,307	$3,883	$4,378
Services	do.	$13,107	$15,051	$16,919
Government and government enterprises	do.	$9,685	$10,348	$11,173
Construction activity:				
Number of private and public residential units authorized		21,327	36,077	43,024
Value of nonresidential construction	millions	$1,422.8	$1,344.8	$1,792.4
Value of State road contract awards	do.	$188.0	$208.0	$244.3
Shipments of portland and masonry cement to and within the State	thousand short tons	1,288	1,393	1,740
Nonfuel mineral production value:				
Total crude mineral value	millions	$132.3	$154.6	$156.2
Value per capita		$18	$21	$21

[p]Preliminary. [r]Revised. NA Not available.
[1]Bureau of Labor Statistics, U.S. Department of Labor; totals do not add because of inclusion of data from other sources.
[2]Bureau of Economic Analysis, Regional Economic Measurement Division, U.S. Department of Commerce.
[3]Data do not add to total shown because of independent rounding.

Sources: U.S. Department of Commerce, U.S. Department of Labor, Highway and Heavy Construction Magazine, and U.S. Bureau of Mines.

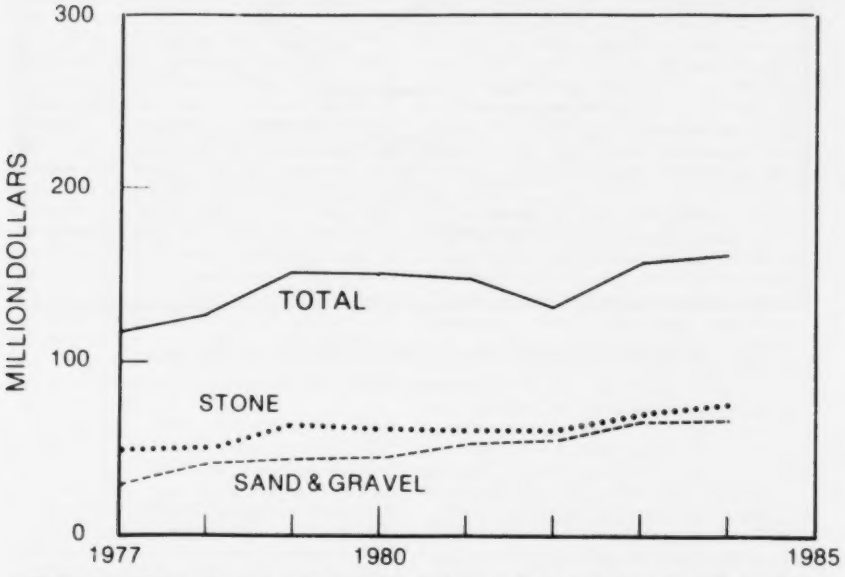

Figure 1.—Value of sand and gravel and stone and total value of nonfuel mineral production in New Jersey.

Figure 2.—Principal mineral producing localities in New Jersey.

Trends and Developments.—Two concerns in the State during 1984 were the reported discovery of rich uranium deposits several years ago and the effects of acid rain on the ecosystem. In the case of the uranium deposits identified, the State, in 1981, imposed a 7-year moratorium on all uranium activities until 1988. In the interim, a commission was established to examine the ramifications of uranium mining. The commission was to consider the potential for new jobs, new industries created, and increased revenue for the State. These economic issues will be weighed against the potential health and environmental dangers posed in every step of the process: exploration, mining, milling, transportation, uses, and disposal. Counties identified with promising deposits included Sussex, Passaic, Warren, Hunterdon, Morris, and Bergen.

In an effort to better understand the effects of acid rain on the environment, the New Jersey Department of Environmental Protection (DEP) funded four acid rain research projects in the State utilizing a special $100,000 State legislative appropriation and matching Federal funds. The first project, in the New Jersey Pinelands, concerned the role of acid deposition in the acidification of streams in the region. In this project, the U.S. Geological Survey (USGS) is conducting the research. The Pinelands region is a major source of potable water in the State and the composition of the rocks and soil in the area makes it especially susceptible to the effects of acid rain. Two other projects, coordinated by Rutgers University faculty, concern the study of whether acid deposition affects the movement of toxic metals from soils into the lakes and fish, and how acid deposition affects the growth rate of soybeans—one of New Jersey's principal crops. The fourth project, under the direction of faculty from the New Jersey Institute of Technology, concerns laboratory studies of the effects of acid deposition on common building and construction materials, such as aluminum, cast iron, copper, and steel.

Legislation and Government Programs.—In February, Assembly Bill 794, the Beverage Container Redemption and Recycling Act, was reintroduced. The bill, opposed by the State's glass and industrial sand producers, would place a 10-cent deposit on all cans and bottle containers. At yearend, the bill was still in the Agricultural and Environmental Committee with voting by the State Assembly expected in early 1985. New Jersey legislators defeated a similar bottle bill in 1983. The State's glass industry, which has sustained recent losses, has opposed the legislation. In 1984, New Jersey was the Nation's third leading industrial sand producer, primarily used for the manufacture of glass products.

During the year, legislation was enacted providing aid to municipalities that lost tax revenues as a result of the 1979 Pinelands Protection Act. The Pinelands Municipal Property Tax Stabilization Act will reimburse pinelands municipalities for losses in tax revenues resulting from vacant land devaluation. The bill was intended to protect property owners from tax increases that would have occurred as a result of vacant land devaluation in their towns. Land use measures within the Pinelands include restrictions on the extractive mineral industries.

In August, State Senate Bill 1635 was signed into law appropriating nearly $10.4 million for specific shore protection projects, which included construction of bulkheads, revetments, and a seawall. The new law (Chapter 103, Public Laws of 1984), which should benefit local construction aggregate producers, provides $5.4 million for State projects and for State matching grants to counties and municipalities; $4.5 million for State loans to counties and municipalities to provide the local share of a State grant; and $0.5 million to the DEP for administrative expenses incurred in implementing the law. The funds were appropriated from the Shore Protection Fund, created under the Shore Protection Bond Act of 1983.

The New Jersey Geological Survey (NJGS) was officially reorganized in November 1984 into three bureaus: the Bureau of Geology and Topography; the Bureau of Ground Water Pollution Analysis; and the Bureau of Ground Water Resources Evaluation. Since its merger with the Bureau of Ground Water Management, the NJGS has expanded its role, especially in the ground water quality and quantity areas. Although not a regulatory agency, the NJGS services all regulators dealing with ground water and geologic problems and receives a large share of its funding from these agencies.

Water, an important resource essential to mining, mineral processing, and reclamation, received additional emphasis in connection with a number of NJGS projects and programs.

In November, the Bureau of Geology and Topography took delivery of a second drill rig and will be receiving a second geophysical logger early in 1985 as part of the NJGS water bond project to revise the State geologic map and evaluate its aquifers. The mapping will be done jointly by the NJGS and USGS under the COGEOMAP program. Full-scale field mapping will begin in the spring of 1985. Several quadrangles had been mapped to established geologic units, and a new 1:100,000 scale USGS base map was nearing completion.

The Bureau of Ground Water Pollution Analysis, which provided hydrogeologic expertise to State regulatory agencies dealing with ground water pollution, continued investigating over 300 ground water pollution cases in the State. In addition, this bureau received additional responsibilities under the new Environmental Clean Up Responsibility Act, which requires industries to obtain certification that the soil and ground water at a site is clean before selling their property.

The Bureau of Ground Water Resources Evaluation was charged with the development and application of hydrogeologic mapping and mathematical, computer, and geophysical techniques to ground water resources evaluation. The Bureau provided information, guidance, and assistance on ground water resources to Federal, State, and local agencies as well as to the general public. During 1984, the Bureau participated in several cooperative programs with the USGS Water Resources Division and conducted an assessment of the State's Quaternary buried valley aquifer systems utilizing geophysical techniques and conventional mapping methods.

During fiscal year 1984, local units of government of the State of New Jersey received $50,312 from the U.S. Department of the Interior as compensation for "payment in lieu of taxes" for the fiscal impacts of certain tax exempt Federal lands within their boundaries. The payments were based on a formula approved by Congress in a 1976 law.

Also during the fiscal year, the U.S. Bureau of Mines had four active contracts in the State, valued at $63,572. The contracts, awarded to Stevens Institute of Technology and three private firms, were for mineral-related studies.

REVIEW BY NONFUEL MINERAL COMMODITIES

NONMETALS

Clays.—Clay production in New Jersey in 1984 totaled 62,000 short tons valued at $611,000. Both production and value remained essentially the same as that of 1983. Two companies produced clay in the State. New Jersey Shale Brick & Tile Corp. produced common clay and shale at one operation in Somerset County, and The Morie Co. Inc. produced fire clay in Cumberland County. Common clay was used primarily for the manufacture of common brick, and fire clay, primarily for foundry uses.

Gem Stones.—Value of gem stones and mineral specimens collected by mineral dealers and amateur collectors in New Jersey was estimated at $1,000 in 1984.

Greensand.—Inversand Co., a subsidiary of Hungerford & Terry Inc., near Clayton, Gloucester County, produced greensand in 1984. Deposits of greensand, also known as the mineral glauconite, occur from Sandy Hook south to the Delaware Bay near Salem. Greensand was processed and sold for use mainly as a filtration medium to remove soluble iron and manganese from well waters. A secondary use of the unprocessed material was as a conditioner for organic soils. Glauconite is a hydrous iron potassium silicate containing various amounts of aluminum, magnesium, sodium, and trace elements.

Gypsum.—Crude gypsum, imported from Nova Scotia, Canada, was calcined by National Gypsum Co., Burlington County, and Genstar Building Products Co., Camden County. Calcined gypsum production and value increased 19% and 26%, respectively, compared with that of 1983. The calcined gypsum was used primarily in the manufacture of wallboard and industrial and building plasters.

The United States Gypsum Co., which employed more than 350 people at sites throughout New Jersey, was modernizing and expanding its operations in Clark, with the help of a $3.45 million Industrial Development Bond issued by the New Jersey Economic Development Authority. The Clark plant was one of the company's major facilities for the production of paper used at other plants that produce wallboard. As a result of the expanded operations at the Clark plant, the manufacturer of building products expected to bring another 40 per-

manent jobs and 20 construction jobs to the State.

Iodine.—Crude iodine was shipped into New Jersey and utilized by eight companies at nine plants to manufacture various iodine-containing compounds. Iodine compounds were used for laboratory reagents, in pharmaceuticals, specialty organic and inorganic chemicals, and sanitary purposes. The companies that produced iodine-containing compounds were Allied Corp., Morristown; Cooper Chemical Co., Long Valley; Fisher Scientific Co., Fair Lawn; GAF Corp., Linden; Ganes Chemicals Inc., Carlstadt; J. T. Baker Chemical Co., Phillipsburg; Troy Chemical Corp., Newark; and White Chemical Corp., Newark.

Iron Oxide Pigments.—Two companies produced finished pigments during the year. Columbian Chemicals Co. operated at Monmouth Junction, Middlesex County, and American Minerals Inc. operated a plant in Camden, Camden County. The American Minerals plant was owned by Combustion Engineering Co. until its sale in January.

Magnesium Compounds.—Harbison-Walker Refractories Co.'s plant in Cape May County, closed in October 1983, remained idle throughout 1984.

Peat.—In 1984, peat was produced by four companies at four operations in two counties. Sussex County with three operations accounted for most of the production; Warren County had one operation. Production amounted to 5,400 short tons valued at nearly $128,000. Both reed-sedge and humus were produced and were either shipped packaged (43%) or sold in bulk (57%). The peat was used primarily for soil improvement and in potting soil.

Perlite (Expanded).—Crude perlite shipped in from out of State was expanded by The Schundler Co. in Edison, Middlesex County. Both production and value were below 1983 levels.

Quartz Crystal.—Rowan Industries Inc., Red Bank, Monmouth County, used cultured quartz crystal for the manufacture of electronic components.

Sand and Gravel.—*Construction.*— Construction sand and gravel production is surveyed by the U.S. Bureau of Mines for even-numbered years only; therefore, this chapter contains only estimates for 1983. Data for odd-numbered years are based on annual company estimates made before yearend.

Output totaled 9.5 million short tons valued at $31.9 million in 1984, a decrease in both quantity and value compared with 1983 estimates. Construction sand and gravel was produced by 63 companies at 74 pits in 15 of the State's 21 counties and was used primarily for concrete aggregate, asphaltic concrete aggregate, fill, and road base and coverings.

Table 4.—New Jersey: Construction sand and gravel sold or used in 1984, by major use category

Use	Quantity (thousand short tons)	Value (thousands)	Value per ton
Concrete aggregate	3,774	$13,721	$3.64
Plaster and gunite sands	274	1,008	3.68
Concrete products	222	791	3.56
Asphaltic concrete	1,559	6,144	3.94
Road base and coverings[1]	337	1,004	2.98
Fill	409	1,187	2.90
Snow and ice control	71	298	4.21
Other[2]	2,900	7,726	2.66
Total[3] or average	9,545	31,878	3.34

[1]Includes road and other stabilization (cement and lime).
[2]Includes roofing granules and other unspecified uses.
[3]Data may not add to totals shown because of independent rounding.

Industrial.—Nationally, New Jersey ranked third in industrial sand production in 1984; 11 companies operated 16 pits in 8 counties and produced 2.7 million short tons valued at $32.3 million. Most of the industrial sand was produced in Cumberland County, which accounted for 75% of the total State output. Other major producing counties were Cape May and Atlantic. Principal uses of industrial sand were for glass products, mold and core, and in sandblasting.

The Morie Co. (formerly Jessie S. Morie & Son Inc.) changed its name near yearend to "reflect the organization's increasing size and scope of mining activities," according

to the company. The company, started 50 years ago, had become the Nation's fourth largest sand and gravel producer. Also, during the year, the company acquired the Upper Township Sand and Gravel Co. (UTS&G) in Cape May County for $2.5 million. The Morie Co. entered into an agreement with UTS&G to purchase assets including all of its mineral reserves. Acquisition of UTS&G's 359 acres extended the mineral reserves of The Morie Co.'s New Jersey operation at least 25 years and will allow additional penetration into the sand and gravel market in the southern part of the State.

Owens-Illinois Inc. officially closed its glass container plant in Bridgeton, Cumberland County, in February owing to a consistent lack of profits caused by area overcapacity in the glass container industry; high operating costs, especially for natural gas; and the effect of the forced deposit law in New York and proposed deposit law in New Jersey. The plant, which employed over 600 workers, was operating 2 melting furnaces and 5 forming machines at the time of the shutdown. The primary product was bottles for the soft drink industry.

Stone.—Stone production is surveyed by the U.S. Bureau of Mines for odd-numbered years only; therefore, this chapter contains only estimates for 1984. Data for even-numbered years are based on annual company estimates made before yearend.

Estimated crushed stone production totaled 13.5 million short tons valued at $75 million, a 10% increase in output and a 7% increase in value compared with 1983 figures. Major uses of crushed stone were for concrete aggregate, road base, and bituminous aggregate.

In March, the West Amwell Township Committee, Hunterton County, rejected a request by Fort Commanche Inc. for a zoning change to permit a quarry operation at the former Washington Rock Boy Scout camp. The 216-acre property, purchased by the company in 1983 for $600,000, is zoned 3-acre residential. In rejecting the company's request, the Township Committee cited strong local opposition and the Township master plan, which called for keeping the Scout property recreational or 3-acre residential. Near yearend, however, Fort Commanche filed a use variance application with the Township. The controversy was expected to continue into 1985.

Trap Rock Industries Inc.'s Kingston Quarry won the Sentinels of Safety Trophy, mining's most prestigious safety award, for the second time in 4 years. The quarry won the national honor by working 363,293 employee-hours in 1983 without a single lost time injury. The national safety award, which is presented each year to mines in six categories with the best safety records in the country, was cosponsored by the American Mining Congress and the Mine Safety and Health Administration of the U.S. Department of Labor.

Sulfur (Recovered).—Elemental sulfur was recovered as a nondiscretionary by-product at four petroleum refineries in the State. Mobil Oil Corp. and Texaco Inc. each operated a refinery in Gloucester County; Chevron U.S.A. Inc. operated a refinery in Middlesex County; and Exxon Co. U.S.A. operated the Bayway refinery in Union County. In 1984, shipments amounted to 58,136 metric tons valued at $6.6 million. This represents a decrease in quantity and value of 20% and 17%, respectively. Sulfur was used in the manufacture of sulfuric acid, fertilizers, plastics, and other products.

Talc.—Talc mined in other States was shipped into New Jersey and processed by Amoco Minerals Co. at a plant in South Plainfield. The talc was used primarily in the manufacture of paper, cosmetics, paint, plastics, and ceramics.

Vermiculite (Exfoliated).—Crude vermiculite was shipped into the State and exfoliated by W. R. Grace & Co., Construction Products Div., Trenton, Mercer County, and by Schundler, Edison, Middlesex County. Both output and value rose 15% and 5%, respectively, compared with 1983 levels. Principal uses were for fireproofing, loose fill and block insulation, and as a horticultural agent.

METALS

Aluminum.—A new company, Alumet Smelting Corp. at Newark in Essex County, was formed during the year as a fully integrated secondary smelter. The stock feed for the aluminum scrap will be provided by an adjacent scrapyard. The plant had the capacity to produce about 1,400 metric tons of secondary ingot per year.

Copper.—United States Metals Refining Co., a subsidiary of AMAX Inc., Carteret, changed its emphasis from secondary copper smelting and refining and began gearing its operations toward recovering precious metals. The company also announced that it may undertake an $11 million capi-

tal investment program in 1985, involving the construction of an electric furnace.

AmRod Corp., a newly formed New Jersey-based company, announced that it would proceed with the construction of a 60,000-metric-ton-per-year state-of-the-art continuous cast copper rod mill, at Port Newark. The facility would be built by Southwire Co., Carrollton, GA, and would include the installation of the Southwire continuous rod system. Along with producing rod, the plant would provide a completely integrated, high-quality copper processing facility. The plant was scheduled to begin operating the first quarter of 1985.

Federated Metals Corp., a subsidiary of ASARCO Incorporated, permanently closed its Newark plant during the year. Citing unprofitability, the company announced that it would no longer produce brass and bronze ingots or copper hardeners. The plant, with nearly 90 employees, had been operating at about 30% capacity.

Copper sulfate continued to be produced by two companies in the State. CP Chemical Inc. operated a plant in Sewaren and Madison Industries Inc. operated a plant in Old Bridge.

Ferroalloys.—Shieldalloy Corp., a subsidiary of Metallurg Inc., Newfield, Gloucester County, was the sole producer of ferroalloys in the State. The company, which employed about 250 workers, operated metallothermic furnaces and produced ferroalloys of aluminum, boron, columbium, titanium, and vanadium. The products were used by other companies for the manufacture of cast iron products, auto parts, tool steel, and other products.

Selenium and Tellurium.—Primary selenium was produced by the United States Metals Refining Co., a subsidiary of AMAX, at its copper refinery in Carteret, Middlesex County. In 1984, production was sharply curtailed because copper production at the facility had been reduced in December 1983. The facility changed its emphasis to precious metals recovery and was processing little or no primary blister and no longer toll refined anode slimes. Although tellurium production at Carteret ended in 1982, AMAX remained a major consumer of tellurium for use in tellurium copper alloys produced at Carteret.

Steel.—New Jersey Steel Corp. at Sayreville was considering a 60% increase in its raw steel output to 400,000 short tons per year from its 1984 full capacity level of 250,000 tons. Capital plans for the expansion, which would be done through modifications to the company's electric arc furnace, were being prepared. New Jersey Steel had been increasing its output steadily since it resumed production in 1981 after lengthy labor disputes closed the plant. Near yearend, the company announced that it would increase productivity of reinforcing bar 60% to 80% as a result of a technology agreement with Co-Steel International Ltd. of Canada. Under the agreement, the minimill had the right to use slit-rolling technology developed in the early 1970's by the Ontario-based steel company. The technology enables bar mills to produce multiple strands of small-diameter rebar from a single billet.

Raritan River Steel Co., Perth Amboy, announced it would spend at least $5 million as part of a continuing $10 million modernization and modification program; $2.2 million of it to raise its rolling speed from 15,000 feet per minute to 20,000 feet per minute, putting it on a par with the world's fastest rolling operations, which are in Japan. Work also would be undertaken to improve Raritan's electric furnace by installing eccentric bottom tapping to make cleaner steel. A $350,000 computer installation was also planned. Expected completion date for the entire project was December 1985.

Zinc.—New Jersey ranked fifth among the nine States producing zinc, up from sixth place in 1983. The New Jersey Zinc Co. Inc., the State's only producer, operated the Sterling Mine at Ogdensburg in Sussex County. In terms of total output, the mine was the Nation's ninth leading producer.

In August, 60 miners at the Ogdensburg Mine went on strike, shutting down the 1,850-foot-deep mine. Members of the company's United Steelworkers of America Union at the Depue, IL, zinc dust plant and the Palmerton, PA, plant, where the Sterling zinc ore is processed into zinc oxide, also walked off their jobs after rejecting a proposed contract offer. However, in early September, workers at the three facilities accepted the company's original contract offer and returned to work ending the 18-day strike. During the strike, there had been no disruption of shipments from any of the plants.

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[1]State Mineral Officer, Bureau of Mines, Pittsburgh, PA.

Table 5.—Principal producers

Commodity and company	Address	Type of activity	County
Clays:			
The Morie Co. Inc.[1]	1201 North High St. Millville, NJ 08322	Pit	Cumberland.
New Jersey Shale Brick & Tile Corp	Box 490 Somerville, NJ 08876	Pit	Somerset.
Greensand:			
Inversand Co., a subsidiary of Hungerford & Terry Inc.	Box 45 Clayton, NJ 08312	Pit	Gloucester.
Gypsum (calcined):			
Genstar Building Products Co	1101 South Front St. Camden, NJ 08103	Plant	Camden.
National Gypsum Co	2001 Rexford Rd. Charlotte, NC 28211	do	Burlington.
Iron oxide pigments:			
American Minerals Inc	Foot of Jefferson St. Camden, NJ 08101	do	Camden.
Columbian Chemicals Co	Box 37 Tulsa, OK 74102	do	Middlesex.
Peat:			
Glacial Soils Lab	346 Grand Ave. Englewood, NJ 07631	Bog	Sussex.
Kelsey Humus Co	Kelsey Park Great Meadows, NJ 07838	Bog	Warren.
Netcong Natural Products	R.D. 3, Box 573AA Flemington, NJ 08822	Bog	Sussex.
Stan's Soils	R.D. 2, Box 129 Sussex, NJ 07461	Bog	Do.
Perlite (expanded):			
The Schundler Co.[2]	Box 251 Metuchen, NJ 08840	Plant	Middlesex.
Sand and gravel:			
Construction:			
Clayton Sand Co	Box 928 Lakewood, NJ 08701	Pit	Ocean.
Dallenbach Sand Co. Inc.	Box 333 Dayton, NJ 08810	Dredge	Middlesex.
Tri-County Asphalt Corp	Box 247, Wheatsworth Rd. Hamburg, NJ 07419	Pit	Sussex.
Tuckahoe Sand & Gravel	Box 248 Tuckahoe, NJ 08250	Dredge	Cape May.
Industrial:			
Pennsylvania Glass Sand Corp	Box 187 Berkeley Springs, WV 25411	Pit	Cumberland.
Unimin Corp., Dividing Creek Plant	258 Elm St. New Canaan, CT 06840	Pits	Do.
Whitehead Bros. Co	Box 259, River Rd. Leesburg, NJ 08327	do	Do.
Stone (1983):			
Granite (crushed and broken):			
Riverdale Quarry Co	125 Hamburg Turnpike Riverdale, NJ 07457	Quarry	Morris.
Tri-County Asphalt Corp	Route 15 Hopatcong, NJ 07843	do	Sussex.
Traprock (basalt, crushed and broken):			
Little Ferry Asphalt Corp	650 Valley Rd. Clifton, NJ 07643	do	Passaic.
Stavola Construction Materials Inc	Box 482 Red Bank, NJ 07701	do	Somerset.
Trap Rock Industries Inc	Box 419 Kingston, NJ 08528	Quarries	Hunterdon, Mercer, Somerset.
Sulfur (recovered):			
Chevron U.S.A. Inc	1200 State St. Perth Amboy, NJ 08861	Refinery	Middlesex.
Exxon Co. U.S.A.	Box 23 Linden, NJ 07036	do	Union.
Mobil Oil Corp	Paulsboro, NJ 08066	do	Gloucester.
Texaco Inc.	Eagle Point, Box 52332 Houston, TX 77052	do	Do.
Vermiculite (exfoliated):			
W. R. Grace & Co.	62 Whittemore Ave. Cambridge, MA 02140	Plant	Mercer.
Zinc:			
The New Jersey Zinc Co. Inc	Sterling Hill Mine Plant St. Ogdensburg, NJ 07439	Mine	Sussex.

[1]Also industrial sand and gravel.
[2]Also exfoliated vermiculite.

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